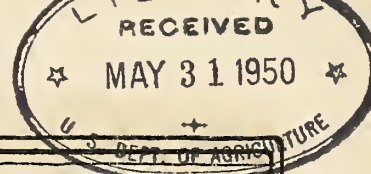


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Vol. 2, No. 2

February - 1937

"LAND IS LIFE"

It is a European saying, born of centuries of painful experience. We Americans have not yet learned it, but we will, and before very long. Students of the situation tell us that whereas we are now using 400 million acres of crop land and can not get along with less than 300 million by any practicable methods now known, at the present rate of deterioration we shall have, within a scant fifty years, only 150 million acres of productive land left.

What will happen then? Well, of course we will have to import from abroad about half of the agricultural products needed to feed and clothe our population, and that means that we will have to jack up our output of manufactured goods so as to have something to trade for foodstuffs; we will be in the same boat that England is. But there is a fly or two in that ointment, also. For one thing, like England we would have to maintain a navy a little stronger than those of any combination of powers which might conceivably attack us, because if an enemy were able to bottle up our ports it could quickly starve us into submission.

But there is a still more repulsive fly. Manufacturing requires raw materials, and ours are no longer any too plentiful. Our copper, lead, zinc, and oil are more than half gone, never to be replaced, and we have cut the bulk of our saw-timber. We still have lots of coal and iron, but even there the cream has been skimmed off, making mining more expensive and hence increasing manufacturing costs. And of course a nation that must trade its labor, in the form of manufactured goods, for food, can not enjoy a very high standard of living because it must compete with the labor of the rest of the world.

Our only salvation, economically and spiritually, is to save our land. All the other problems about which we are fretting and fuming today are of negligible importance beside the prospect of joining the list of nations who must literally earn their bread in the sweat of their brow. From the misery of perpetual poverty our present "depression" will seem like a season of plenty, and we will discover that all of the sound and fury about a balanced monetary budget was misdirected - we should have been concerned about balancing the budget of our natural resources. And remember, we are discussing a period only fifty

years hence. The "posterity" toward whom we have been accustomed to unctuously profess an obligation of good stewardship is now our own sons and daughters - not some misty generation of a comfortably distant future.

Luckily, the accelerating evidence of destruction, expressed in floods, dust storms, and increasingly recurrent "droughts" - most years are drought years to a worn-out farm or gutted range - is slowly focusing public attention upon this peril to the Nation's welfare. Whether the awakening can be crystallized into action in time to avert disaster remains to be seen, but there is this much to be said - to be a working conservationist means more today than ever before in the history of the country.

- E.L.P.

CAUSES OF 1936 LOSSES

How does the following classification of losses fit conditions in your State? The percentages are purely theoretical. They were reached by each member of the office of Timber Management listing his own classification and then adjusting differences until general agreement was reached.

It will be noted that drought is not listed as one of the causes of our losses. If we were comparing this year's survival with that of other years it should be used, but it doesn't mean much in an analysis confined to one year's losses. The fact that fifty per cent of the trees survived in spite of the drought, means that those that succumbed were handicapped in some other way, and the results of our efforts to analyze those contributing factors are listed below. If we are anywhere near right, there are some things to ponder about. For example: Has our rodent-control work been more effective than we thought, or have we been putting our money on the wrong horse? Note that only 5% of our loss is attributed to rodent injury.

TABLE NO. 1

SURVIVAL OF 1936 STRIP PLANTINGS

States	Per cent Survival to July 1, 1936	Per cent Survival to Sept. 10, 1936	Per cent loss from July 1 to Sept. 10
North Dakota	78.8	47.8	31.0
South Dakota	93.7	61.1	32.6
Nebraska	77.1	50.8	26.3
Kansas	78.5	37.1	*41.4
Oklahoma	83.4	59.5	23.9
Texas	76.6	52.0	24.6
All States	82.7	51.0	31.7

* The high loss during the second period in Kansas was due to (1) excessive use of poor quality wilding stock; (2) higher percentage of direct seeding than in other States; and (3) more severe infestation of grasshoppers aided by more prolonged drought than in other States.

TABLE NO. 2

ANALYSIS OF CAUSES OF 20% LOSS PRIOR TO JULY 1, 1936

- 25% - 1. Unsatisfactory ground preparation
 - a. Planting in sod, wheat and rye
 - b. Unsubsoiled tight land
 - c. Plowed-under trash
 - d. Insufficient cover on blow sand
- 2. Unsatisfactory planting sites
 - a. Sod and alfalfa land
 - b. Prohibitive soils used for experimental plantings
- 20% - 1. Poor planting
 - a. Unsatisfactory labor
 - b. Incompetent supervision
 - c. Unsubsoiled tight land
- 20% - Poor quality wildings
- 15% - Undersized seedlings
- 10% - Direct seeding and cuttings
- 10% - Late planting

TABLE NO. 3

ANALYSIS OF CAUSES OF 30% LOSS SUBSEQUENT TO JULY 1, 1936

- 20% - Grasshopper damage
- 10% - 1. Direct seeding
 - a. Unstratified seed
 - b. Late planting and late germination
 - c. Poor seed
- 2. Cuttings
 - a. Use of cuttings admittedly unsatisfactory but necessary because of shortage of seedling stock
 - b. Insufficient summer moisture for continued growth
- 30% - Lack of proper cultivation
 - a. Untimely interruption of cultivation in July when most needed
- 15% - Undersized seedlings
- 10% - Unsatisfactory land preparation
- 5% - Poor planting
- 5% - Wind erosion
 - a. Insufficient cover on light, sandy soils
 - b. Prolonged drought resulting in dried-out top soil
- 5% - Rodent damage
 - a. Rabbits, sand rats, gophers

- D. S. Olson

NEW BILL TO REVISE PERSONNEL CONTROL

There have been many bills thrown into the Congressional grist mill recently, but the one introduced by Senator McCarran of Nevada, Senate 741, to amend the Classification Act of March 4, 1923, is of outstanding importance to all employees at this time.

Section 9 provides that employees engaged on duties measurable as to quantity and quality of output are to advance in pay as their production advances. This embodies the principle that the best employees are the cheapest. The latter part of the section limits advancement within the salary rate for the grade at the rate of one step a year until the maximum is reached, provided the employee has rendered faithful and efficient service. If the head of the department is unable to so certify, he or his official representative shall give the employee, in writing, a statement of those deficiencies in the work or conduct of said employee that necessitates withholding the increment in salary, lowering the compensation within the range for the class, demoting the employee to a lower class, or removing the employee from the service.

It seems that such a law as this would necessitate competent personnel officers who have carefully prepared records for each employee in order that their judgment will be proper in connection with the advancement recommendations. It means that careful written inspections and personnel reports will have to be compiled and that much of the guess-work which has heretofore been intermingled with personnel matters will have to be eliminated. Personnel matters will, of necessity, have to be based upon objective findings rather than upon personal prejudices and opinions. There is no doubt that there is a definite trend in Governmental work to place personnel management upon a scientific basis and we can all profit by the trend whether or not S-741 is ever enacted.

- Ray Ward

SHELTERBELTS SAVE FARMS

R. C. Totty of Willow, Oklahoma owns 160 acres of land on which he has planted single and double rows of cottonwood running east and west. These rows are spaced every 40 rods on the west side of the place. Mr. Totty has planted a double row of cottonwood running north and south. This row connects all of the parallel rows which run east and west. The following is Mr. Totty's statement:

"I was not able to raise a crop of any kind on this land 25 years ago. I planted two rows of cottonwood on the north side of the place, running east and west, and single rows of the cottonwood running east and west spaced 40 rods from this first row. By the time the trees were four years old I began to raise good crops. These crops increased in yield until the trees were 12 to 15 years of age. Since the first planting 25 years ago I have filled in the additional rows and tied them up with rows running north and south along the west side of my place.

"I now have trees from four to twenty-five years of age. The row of trees four years old is just beginning to protect the southwest corner of the quarter section.

"As I said before, I could not raise a crop of any kind 25 years ago. Now I have a better crop than any of the neighbors and I do not have to replant my crops on account of blowing out."

Mr. W. D. Hughes of Willow, Oklahoma has a single row of mulberry trees running north and south on the west side of his place. This row of trees is fourteen years old and from sixteen to eighteen feet high. Mr. Hughes states that since the trees were six years old he has not had a crop blowout, and that before that time it was necessary to plant cotton two and sometimes three times a season in order to get a stand. His farm appears well protected from blowing and shows a very marked contrast to a field just across the road south from Mr. Hughes' farm, which has no protection from planted trees.

- Howard Carleton, Jr.

EARLY KANSANS RECOGNIZED VALUE OF TREES

The Kansas Horticultural Society had this to say about tree planting in its report for 1880:

"Those settlers who planted shelterbelts and groves are fixtures on their farms, while those who never planted trees have pulled up stakes and gone elsewhere."

This observation, made 57 years ago, would be just as pertinent today.

MAKE IT CLEAR

We have commonly referred to our fall and spring planting work as "replanting." This is apt to leave the impression that our replacement of failures is a far greater amount than it actually is. When we speak of replanting two million trees in a State, it is likely to be construed that our 1936 plantations sustained a loss that large, whereas the greatest amount of stock is being used in filling out rows left blank when the initial planting was done. It is requested in the future that when you speak or write of this work to the public you mention that such work includes both filling in blank rows and replanting fail spaces.

- D. S. Olson

OUR HOME-GROWN FUEL

The CCC camp located in this county has 30,000 forest trees to set out this year, and more if farmers want them. There are many acres that should be growing trees, trees that will become useful to fill future woodboxes, to be sawed into needed lumber and to be made into fence posts. There is scarcely a farm but what has waste land, land that no longer will be waste when growing trees. On this farm we estimate 15 acres grow trees, the most of which is known as "natural timber." Grass grows among it, and all but a narrow belt is pastured, thus two crops are growing instead of one. Three years ago this winter, fuel went out of this timber to seven families. Our fuel all comes from there, except one load of coal a year, which is used to "piece thru" the coldest weather. A neighbor, having no timber, tells me his fuel bill is \$65 a year. So the timber on this farm would return more than \$4 an acre a year in fuel if there was only one house to heat, but there are two, so the \$4 should be doubled.

- Henry Hatch in KANSAS FARMER

HOW THE FOREST PATHOLOGIST SPENDS THE WINTER

Many of you field men probably have wondered at times what the scientific force does during winter months. As far as Forest Pathology is concerned, the winter months are very busy ones for us. Our work during this period is transferred from the field to the greenhouse and laboratory. It is under regulated conditions that we often are able to secure indications of possible control measures which might be applicable to field procedure.

From the beginning of the Shelterbelt work, we have been considerably interested in the effect of the preceding agricultural crops on the damping-off of deciduous seedlings. While it is still too soon to give even tentative conclusions along this line, it is, however, quite evident that certain agricultural crops enhance damping-off. The same may be said for certain deciduous seedlings which precede other deciduous seedling crops.

Among damping-off experiments which we have under way at the present time, is the testing of different control methods. For the past several weeks we have been working quite largely with formaldehyde, attempting to devise a method whereby treatment may be made at the time of sowing. In making such tests, we used representative soils taken directly from Project nurseries. To some extent the results secured appear promising and warrant field trials.

We also have run in the past, and will run again in the future, additional tests on the use of various fungicides and seed dusts and the relative effectiveness of each in controlling damping-off. Besides these tests on the control of damping-off, we also are studying methods for the control of the Chinese elm root rot under storage conditions. We have done very little so far on the control of molds of seeds during the storage period, but we have made some attempts to treat peat moss in an effort to prevent heating of the seed, with some apparent success. All the various investigations which we have under way, of course, must first be given the actual test under field conditions before they can be recommended. After trials in the field which extend for at least two seasons, we can probably safely recommend certain tests for more extensive use.

Up to the present time, the most satisfactory control for damping-off for any of the deciduous seedlings with which we have worked has been zinc oxide, used as a seed dust. This treatment is quite effective in controlling pre-emergence losses. Under certain conditions, post-emergence losses may continue regardless of the zinc oxide treatment, but considering the ease of application, the results secured to date, and the little danger of chemical injury from the zinc oxide dust, this treatment appears the most promising.

Copper oxide dust is also effective in the control of pre-emergence damping-off, but it is more toxic to the seedlings and therefore less desirable.

Investigative work must necessarily proceed very slowly and cautiously. Without the help of the administrative men, many of the control measures which we are testing would not be of much value. We would like

to take this opportunity to thank every one of you for the interest and cooperation you have given Forest Pathology in carrying on our field trials. We hope that in the future these trials will eventually lead us to a satisfactory solution of some of our mutual problems.

- Ernest Wright

CONFESSION OF THE WIFE OF A SHELTERBELTER

I was supremely happy during the first eighteen years of my married life. Then, one day, my husband announced that he had joined the band of Shelterbelters. He was to be a Nurseryman. That was all right, I thought, because I had been conducting a baby nursery for ten years and I was glad he was going to find out what it is like.

Well, the "sowing season" commenced, and all home activities ceased. I rolled out of bed and staggered downstairs to get breakfast at five-thirty A. M. so an early crew could be told how to plant. Our luncheon was late an hour or so, and when explanations were all in it developed that some of the "higher-ups" had been here to elucidate on assisting at the blessed event of several million little trees. We usually had our dinner on time, and would go out to the nursery to see how many more of the little trees had lifted their fuzzy heads to sniffle the great outdoors.

After a summer of wading around in irrigation ditches, chasing bugs, making up weather reports, 877's, AD101's, 874-15's or what have you, the trees were pronounced out of danger and the nurse could be dispensed with.

Then instead of taking off his uniform and getting into a pair of tennis trousers for a good old game of tennis, he rented an abandoned building. Calls were sent out over the districts, and soon trucks were arriving at all hours of the day and night loaded with tree fruits and seeds. After the first dozen truckloads of plums arrived, considerable time was devoted to convincing the neighbors that the Shelterbelt is not really some sort of a Government-owned canning factory.

It was at about that time that my husband went into a dazed condition, seeing little and hearing less of what transpired at the house. I believe several local alienists put his name on their prospect list, but lo, one day he came into the house with a sheet of wrapping paper liberally smeared with sketches of wheels, cylinders and other jargon. This was followed by several days of close confinement with the town blacksmith, after which he appeared with a contraption he called a macerator. I guess it must have worked because his mental condition returned to nearly normal.

Of course he still uses queer words that don't make sense, to me at least. Whenever he spends an evening with one of those books on seed treating, my kitchen breaks out with a rash of test tubes, germinating trays and other debris. But it all seems silly because whenever he gets a lot of little trees coming up in my best saucers and flower pots, he pulls them up anyway and makes some wiggly lines he calls "germination curves" in a notebook.

I think he is happy, and it has been an interesting experience for me; but things will never be the same since my husband joined the shelterbelters.

- Mrs. Carl Taylor

DO TREES PAY?

While in Oklahoma recently, I saw a newspaper story about a patch of trees in Oklahoma County which sounded a little like something out of Arabian Nights. Later I mentioned the matter to the State Forester at Oklahoma City and he assured me that the owner of the plantation had kept accurate records throughout its life, and that the figures quoted by the newspaper were accurate. Here is the story, somewhat condensed:

Twenty years ago, J. H. Keely, a farmer living on Highway 66 east of Arcadia, had sufficient vision to realize that fence posts would be a salable commodity in a treeless region. Accordingly, he bought \$75 worth of catalpa seedlings and planted them on a twelve-acre hillside that was of little value for crops.

In 1924, eight years after planting, some of the trees had reached post size, and that year he cut \$500 worth of posts. The next harvest occurred in 1927, when he cut \$2,420 worth of material. In 1931 he harvested \$3600 worth; in 1935, \$2080 worth; but the banner crop was taken off last year, when \$4120 worth of material was harvested. This makes a total yield of \$12,720 for that twelve-acre patch of timber, an average of \$53 per acre per year for each of its twenty years of existence.

There is no telling how long this miniature gold mine can be worked, but certainly the plantation has many years of life ahead of it. After cutting, the dominant shoot from the stump is chosen to carry on the work of rejuvenating the plantation, and these shoots sometimes make as much as eight or ten feet of height growth the first year. In a half dozen years or so, the shoot has attained post size and the process is repeated.

If anyone believes that this yield does not border on the miraculous, he is invited to examine the records for any other crop in this region during the past twenty years.

- E.L.P.

WANTS TO HELP IN TREE PLANTING PROGRAM

Edgar L. Schnadig, executive Vice-President of the Chicago Mail Order Company, recently wrote the President as follows:

"The writer's business has frequently brought him very close to the misery created by drought and its consequent loss of property and general devastation. The writer was one of those who exulted in your recognition of the fundamental need when the Shelterbelt Project was launched, and who regretted the necessity of its discontinuance because of lack of appropriations."

Mr. Schnadig goes on to say that he is in communication with several farm paper editors in the Great Plains territory, seeking to stimulate interest in tree planting, and that it is his intention to launch through the 4-H Clubs, or in some other way, a youth interest in the subject.

Secretary Wallace, replying for the President, commended Mr. Schnadig upon his public-spirited interest in this movement, and offered to stimulate interest in Arbor Day and 4-H Club tree-planting activities by mentioning it in one of his Farm and Home Hour radio talks. Said the Secretary:

"Although the 74th Congress decided to discontinue the Plains Shelterbelt Project, the Norris-Jones Bill introduced last year seems to me to express a growing desire for constructive legislation which will markedly step things up in the whole field of farm forestry. This bill goes back to fundamentals. If it is reintroduced and enacted, the Department will, of course, cooperate in carrying out its provisions which apply outside as well as within the Middle West."

UNSUBMITTED VOUCHERS AS OF JANUARY 31

North Dakota.....	1
South Dakota.....	1
Nebraska.....	2
Kansas.....	2
Oklahoma.....	2
Texas.....	5
Regional Office.....	0

- Ray Ward

TRUCK OPERATION COSTS

The following tabulation, prepared from cost records maintained in connection with all Government-owned trucks on the Kansas Unit, covering the six-months period ending December 31, provides information which may be of some interest in comparing the efficiency of various kinds of equipment:

Type	No.	Average age in miles	Miles operated during this period	Total Operation and repair costs	Rate per mile for operation and repair
Chev. Pickup	10	35,058	98,945	\$ 1,141.21	.0115
Chev. Panel	3	34,643	39,953	496.23	.0124
Chev. 1½ ton	5	16,041	35,376	538.04	.0152
GMC 1½ ton	2	17,508	11,957	189.74	.0159
Int. 1½ ton	6	16,809	36,105	423.03	.0117

The above figures are considerably lower than the standard rates for operation and repair of similar types of equipment, established by the Forester's office for cost-keeping purposes, which are .035 per mile for pickups and .05 per mile for 1½ ton trucks. The low operating costs of all equipment is doubtless influenced during this period by the fact that all vehicles on this Unit were completely serviced and repaired just prior to the close of last fiscal year and also to having taken full advantage of contract gasoline prices by maintaining bulk storage at numerous points in the State.

- R. L. Bennett

TEN-DAY PROGRESS REPORT OF PLANTING
APPLICATIONS AND AGREEMENTS
As of February 20, 1937

CONCENTRATION AREAS	:	Total	:	Applications Received*	:	Applications Accepted	:	Agreements Signed by Cooperators	:	Miles of Strip Accepted	:	Number Farms Represented by Accepted Agreements
North Dakota	:		:	Negotiations not yet started				:	:		:	
South Dakota	:	372	:		:		:		:		:	
Nebraska	:	228	:	9	:	9	:	6.66	:	9	:	
Kansas	:	168	:	65	:	51	:	30.10	:	63	:	
Oklahoma	:	548	:	523	:	269	:	126.75	:	237	:	
Texas	:	196	:	194	:	182	:	118.29	:	178	:	
Totals	:	1,512	:	791	:	511	:	281.80	:	487	:	

R. O. GOSSIP

It is said that lightning never strikes twice in the same place, but for the past seven Wednesday evenings it has been hitting with extreme regularity at the Lincoln Bowling Parlors. The medium of these electrical disturbances has been the Forest Service bowling team which indeed has been "striking" all opponents and "sparing" none. Since the last issue of this publication came off the press, the Forest Service Thunderbolts have engaged in five 3-game series of Commercial League competition with the result: Won 12, Lost 3. Going back a bit farther we might add that the team has won 18 of its last 21 league games, which achievement is not to be sneezed at in any man's town.

Wm. B. (Bill) Ihlanfeldt, our genial Fiscal Agent, is back at his desk after a four-months' sojourn in Washington. This, no doubt, accounts for the broad smiles upon the faces of all the girls and boys. Bill had quite a siege of illness during his detail at the nation's capital city but he seems to be well along the road to recovery as he is taking nourishment regularly and has a hankering to get back to his favorite pastimes of bowling, golf and catfishing in the Big Blue River.

A very pleasant visitor in our midst is Malcolm Stuart, Senior Clerk from the Kansas office, who has been on detail in the Regional Office during the past two weeks. Aside from the capable services rendered by Mr. Stuart in our office, we are grateful to him for the many helpful hints he has given us in the art of "picture-taking," Malcolm being an amateur photographer of no mean ability. His latest achievement along these lines was to photograph a goose of the ordinary barnyard variety. During the process of developing, printing, and enlarging, it seems Mr. Stuart succeeded, through some method of trick photography, in making it appear that this goose possessed a neck much longer than that of a giraffe. This is all beyond the powers of our comprehension as the only pictures we ever took showed scenes of shelterbelt strips, nursery seedlings, dust storms, and barren grazing lands.

Mrs. Stuart, who accompanied her husband, has become a welcome addition to the several Forest Service Ladies' Clubs, having already attended one of the regular monthly luncheons, a meeting of the Sewing Club, and several of the bridge parties.

- O.K.Bartos

Land negotiations for new spring planting were started during the early part of February with the return of Vernon Marshall and Meine K. Meines from their details to Texas. New field offices have been opened for that purpose at Neligh, Arnold, and Alliance, with Vernon Marshall and Bill Moffet stationed at Neligh; Meine K. Meines and Glenn Viehmeyer at Arnold; and Sterling C. Neubauer at Alliance. Replanting in the Kearney and Ord Districts will be handled by E. Garth Champagne, from our present office at Kearney. Since the new offices will also serve as district headquarters when the spring planting season starts, warehouse space for tools and equipment will be leased and gasoline pumps installed.

Contrary to last year's practice, we are not soliciting the farmers for applications. Mr. Emerson, Acting State Director, and Mr. Watkins, Extension Forester of the University of Nebraska, formerly Nebraska State Director, have worked out a very satisfactory arrangement whereby applications for trees are being distributed by County Agents to the farmers in our concentration areas. Information in regard to our planting program is made available to the farmers through newspaper publicity, our participation in ACP meetings, and through contact with the County Agents.

Bankers, real estate men and insurance men who, as a class, did not regard last year's easement contracts with too much favor, are expressing themselves as favoring our new, simplified Cooperative Agreement. Farmers seem to be more interested in securing trees this year than last, interest being highest in the Alliance District. To date, 170 applications have been received. It is yet too early for accurate prediction, but all indications point to the possibility of our securing more applications than we shall be able to handle.

Although the new cooperative rodent-control program is still in its infancy, from all indications it should prove to be as satisfactory and far more economical than the old program. Early in the month, agreements had been made with 67 cooperators for a total of 39 miles of strip. It is expected that by the end of the month, agreements will have been made for rodent control on approximately 60 miles of trees. Each cooperator is being furnished with a mimeographed sheet of instructions for handling poison bait, and a short memorandum on simple, but effective, antidotes for strychnine. With the farmers taking the responsibility for rodent-control operations, using poison bait furnished by the Biological Survey, under the direction of trained Biological Survey foremen, excellent results are expected.

Clerical and accounting work in the State office is progressing satisfactorily. Nursery cost reports have been completed, and we have our alibis all ready, thanks to Carl Taylor. All accounting records are up to the minute and voucher work is in a very satisfactory condition. It is our plan to work out, in the near future, a set of fiscal instructions together with all necessary sample forms, to be used by the range examiners when the range program starts. A training outline will also be prepared, and all range examiners given a thorough schooling in such paper work as they will be required to do before they are sent out into the field.

Mr. F. Lee Kirby, in charge of the Range Program from the Regional Office, and A. L. Ford attended the two district range meetings called by the AAA at Pierre, South Dakota on January 28, and at Rapid City on January 29. These meetings were attended by county AAA committeemen, county agents and leading ranchers of the central and western part of the State. The 1937 Range Program, including Forest Service participation, was thoroughly explained to these range leaders.

Although the procedure to be used by the AAA in the North Central Division is somewhat different from that used by the Western Division last year, it is believed that our plans can be altered to meet theirs and a very creditable job of range appraisal will result.

Details were worked out with Mr. Harry Schooler in charge of the Range Program for the North Central Division, and Louis Thompson, secretary of the State AAA Committee.

A decision has finally been reached to establish the three concentrated planting areas this spring at Mitchell, Huron and Aberdeen. A careful study has been made of soil-moisture conditions throughout the eastern part of the State and it has been found that there is not enough difference here to warrant selecting the 1937 planting sites on this basis alone. All of our soil is too dry and it is hoped that spring rains will relieve this situation. It was felt that with limited personnel and equipment, this spring's planting should be confined to three of our present seven concentrated areas rather than selecting three entirely new localities. The Regional Office has approved this matter.

Last winter we experienced the misfortune of having most of our carry-over American elm in the nurseries freeze back to the ground. Most of the American elm in the Brookings nursery was completely killed out. This unquestionably was due to abnormally heavy freezes in early October 1935, which prevented the stock from maturing as it should.

Last fall was an ideal one for maturing stock in the field. Although the present winter is a severe one, recent examinations in our nurseries indicate that the undug American elm is at present in excellent shape with no indication of freeze-back. We therefore believe that the elm in our nurseries will come through the present winter in fine shape.

Last week our honey locust seed was treated with acid at the central seed house. This was then thoroughly washed, dried and put into dry storage. We believe this system is far more efficient than to have each nurseryman treat his seed at the nursery at planting time when he is overloaded with work. We also find that this job can be handled better where we have the necessary equipment than at the various nurseries where such equipment is usually of a makeshift type.

Arrangements have been made with the legislative delegations of Brown and Marshall Counties to introduce an Enabling Act at the present session of the State Legislature that will qualify South Dakota to receive the benefits of the Weeks Law. This is in connection with the proposed purchase unit in Brown and Marshall Counties. Since no appropriation is concerned, little trouble is expected in securing the passage of this act.

One of our force, O. M. Patten, is still out of the North Dakota fold. He is in Oklahoma, either basking in the sunshine or battling the dust storms, depending upon whether or not you are an Oklahoman.

Our entire organization is learning the four-step. No, it's not a new dance step, but the training system which Mr. Lindberg exposed us to last winter. We are going to try it out on the dog, as it were. Each member has a subject assigned to him, and will have an opportunity to demonstrate his teaching ability at a meeting to be held from February 15 to 18. The subjects run the gamut from "How to negotiate for a strip" to "How to handle and understand the filing system," and the scheme should be productive of a lot of good in an educational way.

The last of the Range Examiner expense accounts have been cleared through this office - we hope! Evidently the men from the other Regions were not as poverty stricken as we Plains Foresters, since some of them did not send in their last accounts until recently.

Last Monday Ed Wilbur started plowing south through the North Dakota snowdrifts on his way to Oklahoma, with an assortment of equipment piled up like a three-story layer cake. It included a ton and a half truck, a tractor with cultivating equipment, and a pick-up. The papers have not so far mentioned a man having been dug out from under an avalanche of machinery, so we assume that he got to Oklahoma with the load intact.

Deede and Pears are thinking seriously of asking for a raise to offset the raids made on their wallets by Mr. Ebel and his educated bowling ball. The only hope for peace in our official family seems to be to get one of those Regional Office bowling sharks (if any) up here, to take some of the conceit out of Brother Ebel.

G. A. Freeman has been transferred from the State Office to Valley City, where he has become the official "custodian of the seeds."

The North Dakota gang has gone social. On January 22 we attended a party for Federal Employees at the Jamestown City Hall, did our best with the old-time dances and community singing, and ate a delightful lunch. A few days later Mr. and Mrs. Williams gave a dinner party for the newly married Wilburs, which was attended by all hands and the cook. An electric waffle iron was presented to the new housekeeper.

Our organization boasts two marksmen who can certainly shoot targets, whatever their talent may be in the field. Williams took a \$14.40 cash award and several of the boys' weekly allowance at the city shooting gallery last week, and Clark rather fancies himself with the bow and arrow. There will be more on this subject later.

Mr. Hutchison, who has been trying to straighten out the nursery cost accounting records, and who has been deprived of the counsel and comfort of Mr. Patten, breaks forth with the following rash:

Patten, oh Patten - Come back! Come back!
You've left poor Hutchinson holding the sack.
He's hoping and praying to hear every day
That homeward you'll soon be wending your way
To give him a lift on nursery reports;
They are keeping him dizzy and all out of sorts.

A.C.P. BENEFIT PAYMENTS FOR KANSAS

While subject to revision, particularly as to interpretation, the following outline contains the basic principles for computing benefit payments to tree planters in Kansas:

Certain benefit payments may be granted for planting and maintaining forest trees under the 1937 Agricultural Conservation Program. A general diversion payment will be made for each acre diverted in 1937 from the general soil-depleting base established for the farm, not in excess of fifteen per cent of such base, at an average rate for the United States of \$6.00 per acre, varying among individual farms as the productivity of the crop land on the farm varies from the average productivity of all such crop land in the United States. A soil-depleting base will be established for each farm in 1937 which may or may not be the same base as was established in 1936. If, at the time of checking compliance in 1937, it is found that less acreage of soil-depleting crops has been grown in 1937 than the acreage of the soil-depleting base, the farm is eligible to receive the diversion payment on each acre so diverted up to fifteen per cent of the acreage of the soil-depleting base.

Payment will be made for carrying out on crop land or on non-crop pasture land in 1937 certain soil-building practices, provided that the soil-building payment with respect to any farm shall not exceed the soil-building allowance for the farm. A soil-building allowance will be established for each farm which will be similar to "money in the bank." Against this credit a farmer may earn certain allowances. Planting and maintaining forest trees are considered as practices by which the soil-building payment may be earned.

A farmer who wishes to purchase forest trees and do his own planting and maintenance in 1937 may earn \$10.00 per acre providing that he has at least 200 living trees per acre at the time of checking compliance. This is subject to the soil-building allowance for the farm. A farmer having a tree windbreak which was planted between January 1, 1934 and December 31, 1936 may earn \$4.00 per acre against the soil-building allowance for maintaining such shelterbelt by proper cultivation and other care, providing that he has at least 200 living trees at the time of checking compliance. The farmers owning tree windbreaks which were completed in the 1936 replanting program of the Forest Service are eligible to assume full maintenance responsibility and for such work will earn \$4.00 per acre against the soil-building allowance, providing there are at least 200 living trees per acre at the time of checking compliance.

Farmers owning windbreaks planted in 1935 and 1936 and replanted, cultivated or fenced by the Forest Service in 1937 will be ineligible for the \$4.00 payment in 1937. Forest trees are classified as soil conserving. While it is not possible to make a blanket rule, it is believed that forest trees will assist the farmer to draw the diversion payment under the conditions surrounding the diversion payment as stated above. Farmers electing to do the maintenance in 1937 for the \$4.00 payment will not receive replanting, cultivation, or other maintenance assistance from the Forest Service in 1937. The maintenance practice will be defined in a bulletin to be issued by the State ACP Committee. The payments are all subject to the general provisions underlying the program such as soil-depleting base, soil-building allowance, etc.

- T. Russell Reitz

Land negotiations work has been under way since early in the month. As was the case last year, practically no voluntary applications have been received, which necessitates contacting individual farmers in the field. On February 20, 101 miles of strip has been negotiated and signed up, and it appears that we will get our quota without any particular trouble.

In some communities our men have attended meetings called for one purpose or another, and have explained the planting program, but with only moderate success so far as immediate results are concerned. Perhaps the best wrinkle so far developed was the employment of two well-known farmers in one of the Districts, as land negotiators. These men are thoroughly acquainted with the farming situation in their counties, and, what is more important, know a great many farmers sufficiently well to be able to pick out the right line of approach to each.

One peculiar thing about the situation here is the fact that while it is necessary to sell the shelterbelt idea to each individual, the preference is running strongly toward seven-rod strips rather than the narrower width. It seems that once we convince a farmer that he needs trees, he decides that he needs a lot of them. If this preference for the wider strip keeps up, it will somewhat reduce our total mileage because our quota was based upon a fifty-fifty distribution between the two widths.

Planting has begun on two of our three Districts, and is rolling along in fine shape. The land negotiations job, and the weather man willing, we expect to clean up by March 15 or shortly thereafter. Though there has been no precipitation to speak of since last September, moisture conditions in the sandy land are fair and we are this year avoiding land with any suspicion of tightness, as the devil shuns holy water. We aim to make the trees grow this year if proper land selection and careful planting will do the trick. Labor is plentiful and of fair quality, and we have been fortunate enough to get back some of the men who worked with us last year.

On February 13 Mr. Roberts, Mr. Perry and Mr. Webb had a conference with a representative of the Texas Forest Service at Wichita Falls and arranged to transfer to the State organization a considerable portion of our under-sized seedlings. These will be used by the Texas Forest Service for lining out at the Chillicothe and Lubbock Experiment Stations, and for distribution to farmers next year under the Clarke-McNary Law. This was stock that was not of sufficient size to plant in the field this spring, but it is ideal for lining out. We disposed of some similar stock to these people last year, and it is being used this spring to fill Clarke-McNary orders.

West Texas has been visited by dust storms of an unusual intensity and duration this spring. For several days at a stretch this month, visibility was practically nil, the dust coming down first from the north and going all the way to the Gulf of Mexico, and then coming back on a changing wind from the south. The season is early for dust storms, and if it does not rain soon, we will have more and worse ones before the regular "spring blow" begins.

Mr. James W. Kyle has held one meeting in the Elk City District outlining the spring planting program to those interested. Over 39 landowners were in attendance at this meeting and expressed their willingness to cooperate. A dust storm occurred the day before this meeting was held and it is believed that this immediate reminder had a marked influence on the meeting. Mr. Kyle has arranged to hold a number of meetings in his district, as a result of which he hopes to make contacts with farmers and speed up the negotiations work.

In a recent issue of the Plains Forester we reported that the Biological Survey was making some experiments with axle grease and sulphur as a repellant in rodent-control work. Mr. Regnier advises that very good results are obtained with this repellant in some districts in Oklahoma. The Biological Survey in Kansas and Nebraska are buying kaffir maize from Oklahoma to feed their rabbits.

Mr. O. M. Patten, in charge of planting-stock distribution at Elk City, is using sand bags to prevent tarps from whipping on loads of nursery stock. Several bags scattered over the load hold the tarp down more securely, which prevents danger of stock exposure and decreases the possibility of ripping the tarp.

We have been watching with interest the activities of a covey of quail which have made their home under one of the 1935 plantings during the past winter. The quail were observed in this strip early in the fall and we were interested to know if they would continue to make their home there through the winter. Frequent observations - one of them recently - indicate that this covey of quail, at least, is perfectly satisfied with a home in a Forest Service shelterbelt planting.

Mr. J. W. Nelson, whose farm is one mile north and one mile west of Elk City, in Beckham County, Oklahoma, had definitely decided that a shelterbelt strip running north and south on his 100-acre farm would provide maximum protection.

Conditions existing on the ground convinced Mr. Kyle and Mr. Dahl that a north and south planting was justified although the greater advantages of an east and west strip were stressed. Mr. Nelson favored the north and south strip and the cooperative agreement was prepared accordingly. On Saturday, February 14, after two days of dust storms from the southwest and one day of dust storms from the northwest, Mr. Nelson informed Mr. Kyle that he wished to change the arrangements of his agreement to provide for planting east and west strips, one on the north and one on the south of his farm.

Mr. Kyle quickly took advantage of the situation, stating that he would approve a strip on the north and one on the south, but advised Mr. Nelson to see his neighbor on the north and urge him to plant an east and west strip along his south property line, which would provide south protection for his fields and would also give Mr. Nelson the desired protection from the north. Mr. Nelson sold his neighbor on the idea and agreements have been signed accordingly.

If this spirit of cooperation can be developed, we will have gone a long way in meeting our land negotiation problems.